CHAPTER 13

The Public and Pesticides: Addressing Conflicts and Concerns

Reducing Friction at the Agricultural-Urban Interface

As California's population continues to expand, increasing numbers of people live and work near agricultural operations. Farmland has value to urban-oriented Californians for the open space it provides. To growers, California farmland is a vital economic resource supplying food and fiber to the world, as much a business enterprise as any high-tech manufacturing plant.

During the 1990s, the State saw increasing pressure on agriculture as suburban development moved into what were traditionally agricultural communities. These new residents were often not as understanding nor accepting of the facts of farming — the noise of tractors at night, odors of animals, dust during plowing, and pesticides and fertilizers being sprayed near their homes and schools. From the farmer's viewpoint, encroaching development often means restraints on routine operations (for example, pesticide applications), liability for trespassers, problems with theft and vandalism, damage from dogs, and urban drivers on rural roads.

California has the nation's strictest pesticide laws and regulations. Pesticide sales and use are very tightly controlled. Yet, for many of agriculture's newest suburban neighbors, these controls have been insufficient. These newcomers are concerned about toxic chemicals — including pesticides — and want a say in decisions on what will be used, and when. Farmers view this as unwarranted interference in their business operations.

The resulting friction has escalated at times into hostility and conflict between competing values and land uses. The long-term solution is better land use planning, including firmer urban growth boundaries and, where appropriate, use of buffer zones between agricultural and urban uses. If California farmland is to be maintained and agriculture is to remain a critical component of the State's economy, decisions must be made at the local level that place developments far enough from agricultural production that the two do not come into conflict. Equally important is improving understanding between farmer and urban resident of the problems and concerns that each has. Since pesticide use is often the flashpoint of ag-urban conflict, DPR has initiated several projects to promote better understanding and cooperation among neighbors.

DPR has provided training to CAC staff on how to hold public meetings on volatile issues. DPR also contracted with the University of California Agricultural Issues Center to hold a workshop to address conflicts and solutions in those controversy-prone parts of California where urban development lies next to commercial agriculture. About 50 persons attended the 1995 workshop to address the increasing number of "ag-urban edge" conflicts.

The Agricultural Issues Center published a report, *Farmers and Neighbors: Land Use, Pesticides, and Other Issues*, which among other things, recommended that DPR:

- collect and disseminate the lessons of successful regulatory programs at the local level, describing workable community programs;
- develop a handbook for agricultural commissioners and public health officers as a tool to coordinate pesticide use, community safety, and public agency response;
- provide citizens simple, clear information about where to go and what to do in cases of perceived exposure to pesticides; and
- provide an informational "hot line" to help clear up issues and possible misunderstandings as quickly as possible.

Since the margin between control of pests and injury to host plants frequently is small, more attention should be given to following directions as to dosage and hazard of application.
– 1941 Department annual report

The consensus was that DPR should concentrate on "complementing or reducing the emphasis on regulations by more flexible and open techniques at the community level," with the focus on "voluntary and proactive steps that are open to citizen participation and cooperation, and can serve to create and maintain good neighbors across the ag-urban edge."

People and Pesticides Quality Team

In its 1997 strategic plan, the Department identified several issues it needed to address to enhance its overall effectiveness in achieving its mission. One key strategic focus was to improve responsiveness to community concerns about pesticide applications and their potential impacts, and where possible, to facilitate voluntary cooperative community measures to avoid future problems. Consequently, in March 1998, the Department formed a Quality Team to evaluate different systems for improving DPR and CAC responsiveness to public concerns about pesticides. To ensure a diversity of perspective and broad expertise, Team members were appointed from various DPR branches and the California Agricultural Commissioners and Sealers Association (CACASA). By including CACASA members on the Team, the Department underscored the essential role that commissioners play at the local level in addressing community concerns.

The "People and Pesticides" Quality Team delivered a report to DPR management in late 1999. It emphasized that DPR and the CACs must, among other things, improve public understanding of the regulatory process, listen to the public and discuss their concerns with them, and have mechanisms in place for improving regulatory programs in response to public concerns. The Team recommended that DPR improve internal communication systems, establish a correspondence database to better respond to citizen letters, improve outreach to the public and stakeholders, and improve the Department's external Web site. The Team's detailed recommendations were incorporated into DPR's 2000 Strategic Plan.

Meetings were held with local groups of pest control operators or agricultural aircraft pilots to discuss problems applying to local conditions.... At one meeting it was pointed out to the pilots that there were certain jobs, particularly those adjacent to residential properties, that should not be attempted as the home owners would complain, not only of the noise of the airplane, but also against drift of the pest control materials....The matter was thoroughly discussed by the various pilots present and all indicated they understood that they...would be subject to disciplinary action if complaints were made against them.
– 1952 Department annual report

Northwestern California Tribal Territories Herbicide Monitoring Project

In California, approximately 50 percent of the State's 32 million acres of forested lands consists of timber stands of harvestable quality. Government agencies, private companies, and private individuals own these lands, and may manage some or all of their lands for commercial timber production. An integral part of forestry management includes the use of herbicides to control vegetative competition to new seedlings during reforestation programs and stand improvement. In northwestern California, Native Americans have voiced concern over the use of reforestation herbicides on private and public forest land, as well as the general use of pesticides in agricultural areas adjacent to Native American ancestral territorial lands, and the use of herbicides along rights-of-way (e.g., roadsides). Concerns have focused not only on the impact direct applications may have on forest plants that are the source of traditional foods, medicines, and basketry materials, but also on the impact that off-site movement may have on rivers, streams, and other sources of drinking water, and fish and wildlife habitats. These unique exposure scenarios are not specifically addressed in risk assessments conducted by regulatory agencies. Although the U.S. Forest Service and the California Department of Transportation (CalTrans) have established programs to work with tribal representatives to identify and protect designated areas from herbicide spraying, not all Native Americans participate in these programs, and may collect plant materials in unidentified locations. Additionally, Native Americans are concerned that the protective measures are not sufficient.

At the request of several Native American tribes in this region, DPR began working with U.S. EPA to resolve the concerns of residents. U.S. EPA Region 9 provided funds to DPR and the County Agricultural Commissioners to hold a series of community meetings with Native Americans to identify joint projects to address concerns regarding the impact of pesticide use on Native American communities.

After working with the Native American representatives to identify areas of concern, Environmental Monitoring Branch began a multi-year project in 1996 to monitor surface waters, plants and other natural resources for herbicides and other pesticide residues

from their uses in reforestation, weed control, and agriculture practices in that region. Concurrent with monitoring, DPR Worker Health and Safety Branch began evaluating analytical models and other assessment tools to estimate exposure of Native Americans, particularly persons gathering traditional plants for basket making and other cultural activities. The goal was to determine if unacceptable exposures were occurring and to develop recommendations for Native Americans to reduce pesticide exposure. *(See Chapter 6 for discussion of exposure assessment.)*

Lompoc Interagency Work Group

In 1993, DPR began investigating health concerns of residents in the Santa Barbara community of Lompoc and the surrounding valley (population approximately 42,000). Residents were concerned that pesticide applications in the valley — a vegetable- and flower-growing region — were causing a variety of health problems. Working with the County Agricultural Commissioner, DPR staff had several community meetings to discuss health symptoms, pesticide exposure, exposure to dust and pollen, effectiveness of regulatory restrictions in protecting citizens from pesticide exposure, quantities of pesticides used in the area, and available alternatives to pesticides. To help allay community concerns, the CAC had placed a number of restrictions on pesticide applications in the area, including buffer zones around schools and residences. In 1995, DPR staff completed a report on pest management practices in the Lompoc Valley, with an emphasis on crops grown, their associated pests, and pest control practices, including use of pesticides and alternative pest control methods. In 1998, DPR completed an analysis of weather patterns in Lompoc. This analysis compared weather conditions in Lompoc to 11 other coastal areas in California. The analysis indicated that pesticide air concentrations could be higher than the comparison areas due to differences in weather, during some periods of the year.

In 1997, DPR formed the Lompoc Interagency Work Group (LIWG) to better coordinate efforts to determine whether Lompoc residents suffered a disproportionate rate of illness and if so, to determine the cause. The LIWG is composed of scientific staff from federal, state, and county agencies as well as community representatives. The LIWG formed several subgroups to develop recommendations addressing health concerns, to conduct a pesticide air monitoring strategy, and to consider potential exposures from other environmental factors found in the area, such as crystalline silica, radon, pollen and mold. The pesticide exposure subgroup developed a workplan that recommended comprehensive air monitoring near agricultural areas during the growing season to determine whether pesticides migrate by air to adjacent residential areas. In 1998, DPR conducted preliminary monitoring for 12 pesticides. In 2000, DPR conducted more extensive monitoring for 29 pesticides (and breakdown products) widely used in the area and of potential health concern. Cal/EPA's Air Resources Board planned to monitor for crystalline silica in late 2000. (Diatomaceous earth is mined in the Lompoc Valley.) Final reports on monitoring and analysis were not expected until the end of 2001.

At DPR's request, Cal/EPA's Office of Environmental Health Hazard Assessment evaluated if illnesses in the Lompoc area were occurring at a higher rate than would normally be expected. OEHHA examined 1991 through 1994 hospital discharges, birth defects rates, and cancer incidence and reported in 1998 that respiratory illnesses, in particular asthma and bronchitis, appeared to be elevated in Lompoc with respect to comparison areas. However, a subsequent analysis which included data through 1997 found few significant differences in illness rates between the Lompoc area and similar communities.

Environmental Justice

Environmental justice is a term used to describe the fair treatment of people of all races, cultures, and incomes with respect to the implementation and enforcement of environmental laws and regulations. A number of studies have determined that minorities and low-income populations face disproportionate risks associated with exposure to toxic substances. A federal Executive Order has directed federal agencies — and state agencies delegated with responsibilities for implementing federal laws — to incorporate

Less than five percent of the registrants cause more than 95 percent of the enforcement problems. It is believed that in time uniformly handled regulations not only will outlaw the bad practices of the few but will protect the many from unscrupulous competition and in addition provide a bulwark of consumer confidence throughout the agricultural chemical business.
– 1934 Department annual report

environmental justice into their programs. Chapter 690, Statutes of 1999 (SB 115) made Cal/EPA the lead agency in State government for environmental justice programs, and required the Agency and its boards, departments, and offices, to: (1) ensure their programs are conducted in a manner that provide fair treatment of all races and income levels, (2) promote greater public participation in the development and implementation of environmental policies, and (3) improve research data collection for environmental programs related to the health and safety of minorities and low-income populations.

DPR participates in a statewide effort to work with U.S. EPA on the development of guidelines for environmental justice under Title VI of the federal Civil Rights Act, and participates in an agency-wide working group to draft a model environmental justice mission statement and other plans to implement SB 115.

DPR has also identified environmental justice as a high priority in its Enforcement Initiative. *(See Chapter 7 for overview of Enforcement Initiative.)* Consistent with SB 115, DPR will adopt, and will recommend that the CACs adopt, an environmental justice mission statement intended to assure the fair treatment of people of all races, cultures, and income levels. A key element is for DPR and the CACs to ensure greater public participation in the development, adoption, and implementation of environmental regulations and policies. Beyond the environmental justice distinctions of race, culture, and income, the Enforcement Initiative states that DPR and the CACs will adopt a mission statement "to serve all customers, regardless of occupation, community standing, or pesticide bias with respect, patience, and due diligence." The Enforcement Initiative also calls for DPR to monitor statewide compliance with this policy and include it in the contracts it negotiates with each county for pesticide enforcement.

We try to treat each problem as constructively as possible and at the same time enforce the law equally against all offenders. We must avoid special actions as they might be construed as partial.
– 1936 Department annual report